

CHAPTER 10

Workshop Questions and Answers

Introduction

EPA conducted five two-day workshops from July through September 1997 in Chicago, IL, Atlanta, GA, Dallas, TX, Portland, OR, and Kansas City, MO to help facilitate understanding of the final PFPR rule. The information presented in the workshops mirrored the information presented in this P2 Guidance Manual. In addition, at each workshop, participants were able to walk through a P2 audit exercise and attend breakout sessions that presented more in-depth material on various key aspects of implementation of the rule. Most importantly, the workshops offered participants the opportunity to ask questions directly of EPA about the final PFPR rule.

This chapter includes questions that were asked at the five workshops and presents EPA's responses to these questions. EPA attempted to address all questions that were asked; some questions were consolidated because the same or very similar questions were asked at multiple workshops. The questions and answers are grouped by topic; a table of contents is included on the next page for ease of finding topics of interest.

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Applicability

General

How many facilities are covered under the scope of this rule? How many discharge wastewater?

EPA estimates that there are 2,631 facilities covered by the PFPR rule, 443 of which discharge wastewater.

Facility Operations

How is toll formulating defined?

There is no regulatory definition of “toll formulating”. Toll formulators, as referred to by the PFPR rule, typically formulate, package, or repackage one or more products under contract to another registrant. The toll formulator does not own the registrations for these products. In addition, they may have multiple contracts of varying length with several different companies at the same time.

Registrants typically use toll formulators for one or more of the following reasons:

- The toll formulator has specialized equipment for the formulating or packaging of a product;
- The registrant does not have room at their facility to formulate, package, or repackage the product; or
- The registrant wishes to avoid potential cross contamination concerns by segregating incompatible products (e.g., herbicides and insecticides).

If an industry (i.e., a facility) formulates a product, but does not sell the product, is that operation covered?

Yes, if the operation meets the definition of formulation of an in-scope product/pesticide active ingredient, it is covered. It does not matter whether the facility sells that product or uses it internally. More specifically, the facility must have the potential to discharge in-scope process wastewater from PFPR operations to be covered by the rule.

Formulation pilot (i.e., R&D) facilities may also produce (for sale) formulations in smaller quantities until a contract/toll formulating arrangement can be established. Since these pilot facilities change over frequently and have a small portion of commingled wastewater from formulating operations, are they covered under the PFPR regulation? If so, can a control authority grant a waiver to this type of facility?

Research and development facilities are not covered by the PFPR rule. In addition, these facilities cannot *sell* unregistered experimental pesticide products in the United States without an Experimental Use Permit (EUP) granted by EPA. Therefore, if the facility is producing a formulation for “sale” under a EUP for that product, the facility is still performing R&D activities, which would not be covered under the PFPR rule. However, if the facility is producing an in-scope formulation for sale in the U.S. as a registered product (or outside the U.S. without registration), these formulation activities would be covered under the PFPR rule.

Why are R&D laboratories and operations exempted from the rule? These operations, due to the use of new compounds and formulations, appear to be *potentially* more dangerous polluters than PFPR operations that have existing controls, especially since the volume of wastewater generated does not necessarily increase or decrease the pollutant load.

In general, research and development activities at PFPR facilities do not generate the same wastewater volumes or pollutant loads that are found in manufacturing R&D facilities. They are generally very small operations that develop a new pesticide product or a new formulation (e.g., concentrate, solution ready-to-use, microencapsulated) of an existing product. They cannot store and reuse rinsates for two main reasons: experimental controls and they only make the product one time or in one set of trials.

In addition, in a large number of effluent guidelines, including the Pesticide Chemicals Manufacturing Point Source Category, R&D activities are not covered by the rule and can be regulated on a best professional judgement BPJ basis.

Whose responsibility is it to dispose of wastewater generated by contract packagers? For example, a company formulates a dry granular product containing atrazine and sends it to another company to package.

It is the responsibility of the facility that performs the covered activity to comply with this rule, including all paperwork requirements. Using the example in the question, the packager would be required to comply for all in-scope wastewaters generated during or associated with their packaging operation.

Is repackaging of pesticide active ingredients as both pesticide and nonpesticide products covered under the PFPR standards no matter what the product?

No, only products that are pesticides and that meet the applicability of the PFPR rule are covered by the standards. Non-pesticide products that may contain the same active ingredients are not covered by the rule.

If a facility repackages a pesticide active ingredient in a container for ultimate sale, are they covered under Subcategory C or Subcategory E?

This answer assumes that the product is not exempt from the PFPR rule. If the product that is repackaged is an agricultural pesticide product *and* is packaged in a refillable container *and* the facility is not performing other pesticide formulating or packaging operations, then the production is covered under Subcategory E. Otherwise, the production is covered under Subcategory C.

Are farm cooperatives that supply products to farmers covered by Subcategory E regulations?

Yes, if those cooperatives formulate, package, or repackage pesticide products that are covered by the scope of the rule, and discharge or have the potential to discharge the resulting wastewater. Many farm cooperatives package pesticides from bulk into smaller minibulk (refillable) containers that are delivered to the end user (i.e., the farmer). The water used to clean/rinse these minibulk containers is a covered wastewater under the rule (Subpart E).

Are farmers who repackage pesticide products into smaller containers for delivery to parts of the farm covered by Subcategory E regulations?

No. End users of the pesticide products are not covered by either Subcategory C or E regulations.

Are applicators covered by this rule?

In general, no. Wastewater generated from application of pesticide products is not covered. Therefore, if the only operation is application of the pesticide, they are not covered by the rule (applicators are the end user). However, if they also formulate, package, or repackage products, the wastewater from the formulation, packaging, and repackaging operation is covered.

Is an applicator formulating a product for its own use covered under this rule?

If the product is a registered FIFRA pesticide product or meets the definition of making a pesticidal claim rule (see page 57549, §455.40 of the preamble to the final rule in Appendix A for a discussion of pesticidal claim, as well as 40 CFR 152.8, 152.10, and 152.15) *AND* is being formulated as a manufacturing or end use product (§455.10(i)) for use in the U.S. and is not exempt from the PFPR rule, then the wastewater from formulation is covered by the rule. However, the wastewater from application services is *not* covered by the rule.

Are aerial applicators/crop dusters covered by this rule?

No, wastewaters related to custom application services are not covered by this rule (see 40 CFR 455.60(b)).

Less than 0.25% of a facility's operation is the repackaging of pesticides. Is the facility covered by the rule?

Yes, the wastewater from such in-scope repackaging operations is covered if the facility discharges or has the potential to discharge process wastewater from their repackaging operations. There is no *de minimis* production exemption.

Do all pesticide active ingredient drums require rinsing?

The PFPR rule does not require rinsing of any drums or equipment, although other regulations (e.g., 40 CFR 165.9 in FIFRA or 40 CFR 261.7(b)(3)) may require specific rinsing procedures for certain drums containing pesticide active ingredients or certain hazardous wastes. However, if a facility rinses these drums, the wastewater generated is subject to the PFPR rule.

Is wastewater from remedial actions (e.g., groundwater remediation operations) occurring at a current or former PFPR facility covered by these categorical standards?

No, wastewater from remedial actions does not meet the definition of process wastewater. However, any treatment standards for the discharge of such wastewaters that may be established through a remedial process may take into account the PFPR regulation.

If a facility blends a pesticide product with something else (e.g., grass or fertilizer), is that production covered by the rule?

Yes, unless the operation is considered a custom blending operation, as defined in 40 CFR 167.3.

Are facilities required to rinse inert drums?

No. The rinsing of drums containing pesticide active ingredients or inerts or other raw materials is not required by the PFPR rule. However, if a facility does rinse their drums, the wastewater generated by those rinsing operations is covered by the rule.

Note that FIFRA (40 CFR 165.9(b)) requires that Group II containers (noncombustible containers which formerly contained

organic or metallo-organic pesticides, except organic mercury, lead, cadmium, or arsenic compounds) should first be triple-rinsed before reuse or disposal. Also, there are certain RCRA regulations which require rinsing of containers that have held certain types of hazardous waste (40 CFR 261.7(b)(3)).

Pesticide Active Ingredients and Pesticide Products

Is “Neem Oil,” an active ingredient similar in application to citronella, covered by the rule?

EPA excluded two groups of chemical mixtures from the final rule. The first group is defined at 40 CFR Part 455.10 (j) as “any product whose only pesticidal active ingredient(s) is: a common food/food constituent or nontoxic household item; or is a substance that is generally recognized as safe (GRAS) by the Food and Drug Administration (21 CFR 170.30, 182, 184, and 186) in accordance with good manufacturing practices, as defined by 21 CFR Part 182; or is exempt from FIFRA under 40 CFR 152.25.” EPA believes that citronella is exempt from the PFPR rule as a Group I mixture. Neem oil is an oil extract from the seed kernels of the Indian Neem tree. If neem oil also meets the Group I mixture definition, it is also excluded from the rule.

EPA also excluded a second group of chemical mixtures, but did not develop a definition for this group. The Group 2 mixtures are listed in Table 9 to Part 455; however, because Neem Oil is not listed there, it is not excluded as a Group 2 mixture.

Are Group I chemicals exempted because they are exempted from FIFRA?

Some of the Group 1 chemicals are exempted from certain FIFRA reporting and registration requirements under 40 CFR 152.25; however, Group 1 mixtures also include products whose only pesticide active ingredients are chemicals that are common food/food constituents or nontoxic household items or substances generally recognized as safe (GRAS) by the Food and Drug Administration (21 CFR 170.30, 182, 184, and 186) in accordance with good manufacturing practices, as defined by 21 CFR Part 182.

Are pool chemicals exempt from the rule?

Yes. Pool chemicals (as defined in 40 CFR 455.10(q)) are exempt from this rule (40 CFR 455.40(d)).

Please clarify the sanitizer exemption, specifically for those products that are considered sanitizers, but are not exempted from the PFPR rule by the sanitizer exemption.

The exempted sanitizer products, as defined in section 455.10, are “pesticide products that are intended to disinfect or sanitize, reducing or mitigating growth or development of micro-biological organisms including bacteria, fungi, or viruses on inanimate surfaces in the household, institutional, and/or commercial environment and whose labeled directions for use result in the product being discharged to . . . POTWs. This definition shall also include sanitizer solutions as defined by 21 CFR 178.1010 and pool chemicals as defined in section 455.10(q). This definition does not include liquid chemical sterilants (including sporicidals) exempted by section 455.40(f) or

otherwise, industrial preservatives, and water treatment microbiocides other than pool chemicals.”

In other words, sanitizers, as defined (and including pool chemicals), are exempt from the rule when their labelled directions for *use* (not disposal) result in discharge to POTWs. The rule still covers certain liquid chemical sterilants, industrial preservatives, and water treatment microbiocides other than pool chemicals (e.g., cooling tower or boiler treatment microbiocides). If one product is registered for use as a sanitizer, pool, *and* cooling tower product, is it exempt from the rule?

In general, EPA intends to cover cooling tower biocides under this rule. However, if one product recipe (i.e., registered formulation) has the multiple uses listed above (meaning the chemical is used in the same concentration (percent active ingredient) in both sanitizer and cooling tower uses), the registrant can request their Regional Office or EPA’s Office of Water to determine whether the wastewater resulting from the formulation, packaging, or repackaging of such a product is exempt from this rule. EPA has determined that sodium hypochlorite is not subject to the PFPR guideline. Contact information is provided in Chapter 9 of this guidance manual.

Does chlorine gas meet the definition for exemption as an inorganic wastewater treatment chemical?

Chlorine gas is exempt from the final PFPR rule if it is used in wastewater treatment operations.

Why is EPA interested in tracking inert materials in a P2 audit? Are inert materials covered under the PFPR regulation?

Inert materials are covered in discharges from PFPR operations if they are also priority pollutants. However, the reason EPA suggests tracking inert materials during the P2 audit is to identify possible contaminants in wastewater that will require treatment prior to discharge or to identify characteristics that may hinder effective treatment of pesticide active ingredients or priority pollutants.

What kind of treatment is required for inert materials?

The PFPR rule requires treatment of pesticide active ingredients and priority pollutants. No specific treatment technology has been listed for inert materials, although activated carbon is effective for many organic priority pollutants.

Are fertilizers covered by the rule?

No.

If a pesticide active ingredient that a facility uses is not listed in Table 10, does that mean it is not covered by this rule or it does not require treatment?

No. Table 10 is *not* a list of all covered pesticide active ingredients; it was developed to aid facilities, permit writers, and control authorities in identifying appropriate treatment technologies for existing pesticide active ingredients. In order to determine whether your pesticide active ingredient is covered by the rule, you must review the rule applicability statements

found in III.A (page 57523) of the final rule, located in Appendix A of this guidance manual.

In order to determine the appropriate treatment technology for pesticide active ingredients not listed in Table 10, the facility and control/permitting authority must use best professional judgement (BPJ).

If a facility adds a biocide to their product (e.g., adhesives), is it covered under the rule?

If the facility claims that the final product has pesticidal qualities (because of the addition of the biocide), the product would be covered by the PFPR rule.

If the facility adds the biocide as a preservative (to protect the quality of their product), and therefore is the *end user* of the biocide, then the product is *not* covered under the PFPR rule.

As new pesticide active ingredients come on the market, how does one determine if they are covered by this rule or whether they require treatment?

If the pesticide active ingredient or product is a pesticide as defined in FIFRA regulations (i.e., there is a pesticidal claim made regarding that pesticide active ingredient or product) and the pesticide active ingredient/product will be formulated, packaged, or repackaged into a pesticide product that is not exempted from the rule, then the pesticide active ingredient/product is covered by this rule (see page 57549, §455.40 of the preamble to the final rule in Appendix A for a discussion of pesticidal claim, as well as 40 CFR 152.8, 152.10, and 152.15). Also, the facility must have the potential to discharge wastewater associated with in-scope PFPR production to be covered by these PFPR effluent guidelines.

If wastewater containing a new pesticide active ingredient is covered under the rule, treatment technologies can be determined by identifying the technology for a pesticide active ingredient with a similar chemical structure or through treatability testing.

If certain chemicals (e.g., zinc, copper) are used for both pesticide and nonpesticide products, is the facility covered under the PFPR categorical standards only when they blend these items with inert materials to produce a product specifically marketed as a pesticide product?

The PFPR rule covers the formulating, packaging, and repackaging of pesticide products that meet the applicability of the PFPR rule. Nonpesticide products that may contain the same active ingredients are not covered by the rule. See Chapter 1 of this document for definitions of formulating, packaging, and repackaging.

Does the PFPR rule apply to herbicide growth regulators and surfactants that may contain toxic chemicals?

The PFPR rule applies to all pesticide products that are formulated, packaged, or repackaged and are not specifically exempted from the rule. FIFRA regulations provide the following definitions for pesticide and pesticide product (40 CFR 152.3), as well as pest (40 CFR 152.5):

Pesticide means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any

pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

- (1) Is a new animal drug under FFDCA Sec. 201(w), or
- (2) Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or
- (3) Is an animal feed under FFDCA Sec. 201(x) that bears or contains any substances described by paragraph (s)(1) or (2) of this section.

Pesticide product means a pesticide in the particular form (including composition, packaging, and labeling) in which the pesticide is, or is intended to be, distributed or sold. The term includes any physical apparatus used to deliver or apply the pesticide if distributed or sold with the pesticide.

Pest means an organism is declared to be a pest under circumstances that make it deleterious to man or the environment, if it is:

- (a) Any vertebrate animal other than man;
- (b) Any invertebrate animal, including but not limited to, any insect, other arthropod, nematode, or mollusk such as a slug and snail, but excluding any internal parasite of living man or other living animals;
- (c) Any plant growing where not wanted, including any moss, alga, liverwort, or other plant of any higher order, and any plant part such as a root; or
- (d) Any fungus, bacterium, virus, or other microorganisms, except for those on or in living man or other living animals and those on or in processed food or processed animal feed, beverages, drugs (as defined in FFDCA sec. 201(g)(1)) and cosmetics (as defined in FFDCA sec. 201(i)).

Growth regulators are considered pesticides as defined in the FIFRA regulations. Therefore, the in-scope wastewater associated with the PFPR of growth regulators would be covered by the PFPR rule. Surfactants are generally inert, not active, ingredients of the pesticide product; therefore, when formulated into a pesticide product as an inert material, the surfactant isn't specifically covered, but wastewater associated with the PFPR of the pesticide product (which contains the surfactant) would be covered, as long as the pesticide active ingredient (or the product as a whole) is not exempt from the regulation.

If a chemical can be shown not to pass through a publicly owned treatment works (POTW), can that chemical be exempt from the PFPR rule?

The P2 alternative allows some amount of discharge when a facility is following certain P2 practices set out by this rule and is performing treatment where required by the rule, even if the chemical is deemed to pass through. A facility can perhaps also obtain removal credits from the POTW/control authority for

a particular chemical (see page 57547 of the preamble to the final PFPR rule in Appendix A). Basically, once compliance with 40 CFR Part 403.7 (removal credit regulations) is shown and removal credit authority is granted, the control authority can remove the requirement for pretreatment of the pollutants that remain in a PFPR facility's wastewater discharge after all applicable P2 practices have been implemented and those pollutants can be demonstrated to neither pass through nor interfere with the operation of the POTW (in accordance with 40 CFR 403 provisions). The PFPR industrial user would also have to continue to comply with the pollution prevention practices as specified in the P2 alternative even if a removal credit has been provided. Note that four organic chemicals considered to be priority pollutants (phenol, 2-chlorophenol, 2,4-dichlorophenol, and 2,4-dimethyl phenol) are already excluded from pretreatment standards of this regulation because they do not pass through a POTW.

How does a facility demonstrate that a pesticide active ingredient does *not* pass through the POTW?

As defined at 40 CFR 403.3, pass-through occurs when a POTW violates their NPDES permit. Pass-through of pesticide active ingredients cannot be shown in this manner unless the POTW has limits for specific pesticide active ingredients or has whole effluent toxicity limits (and a toxicity event can be tied to one or more pesticide active ingredients).

The POTW can also make a separate determination whether pesticide active ingredients that are discharged from industrial users are pollutants that could potentially pass through. In this analysis, the POTW measures the level of pesticide active ingredient in both the POTW's influent and effluent. The pesticide active ingredient must be detected in the influent to determine whether pass through occurs. In addition, the POTW can decide whether the presence of the pesticide active ingredient adversely impacts the POTW's treatment operations. If the POTW determines that the pesticide active ingredient either passes through or adversely impacts operations, local limitations may be assigned.

What about the pesticide active ingredient limits that were developed for regulation of the pesticide manufacturing industry (58 FR 50637)?

The limitations developed for the pesticide manufacturing industry covered a much smaller scope of chemicals than the PFPR rule. In addition, the mass-based limitations for the manufacturing industry were developed based on the variability of their wastewaters. PFPR wastewaters can be more variable than pesticide manufacturing wastewaters; therefore, in some cases, it may not be appropriate to transfer the limitation to the PFPR industry. However, it may be possible and desirable for a pesticide manufacturer to receive an additional allowance in their discharge for their PFPR wastewater by applying the pesticide manufacturing limits to the additional production associated with PFPR operations after the facility has incorporated the listed P2 practices into their PFPR operations.

PFPR Wastewater

What is the difference between drum rinsates and interior equipment rinsates and their respective P2 practices?

Both are defined as interior wastewater sources (which require treatment prior to discharge); however, they are different sources. Drum rinsates are generated from the cleaning of raw material drums and can typically be used *immediately* in the product formulation. Drum cleaning also includes the cleaning of shipping containers that may be returned to the shipping facility. The listed P2 practices for drum rinsing include direct reuse, storage and reuse, or use of a countercurrent drum rinsing station.

Interior equipment cleaning rinsates are generated from the cleaning of equipment used to formulate, package, or repack-age products *following* the formulation, packaging, or repack-aging of the product. Therefore, facilities are more likely to store these rinsates for reuse in the next formulation of the same or compatible product. The listed P2 practice for interior equipment rinsates is storage and reuse.

Does formulating equipment interior cleaning include the cleaning of piping and hosing, too?

Yes.

What if a facility produces a water-based product followed by a solvent-based product? The facility cleans the equipment with water, followed by *alcohol*, prior to formulating the solvent-based product. Is the alcohol rinse covered by the PFPR rule? Since the water picked up in the alcohol rinse evaporates, is there anything to preclude reusing the alcohol continuously?

There is nothing to preclude reusing the alcohol continuously, and achieving zero discharge for this cleaning operation. If the facility is not able to reuse the alcohol for some reason, they may choose to dispose of it. In that case, the alcohol rinse is not considered a wastewater covered by the PFPR rule, but would be subject to applicable solvent disposal regulations. However, the P2 alternative encourages facilities to segregate their solvent-based and water-based production to avoid the generation of non-reusable rinsates requiring disposal.

Are cleaning waters from a bulk tank that contains a material used in both pesticide and nonpesticide products covered under this rule?

Yes. The intent of the rule is to cover wastewater associated with pesticide production; therefore, cleaning rinsates of a bulk tank containing a material used in PFPR production would be covered under the PFPR rule.

If the facility has more than one bulk storage tank for a particular material, and can specify that only material from certain tanks are used in PFPR production, then only the rinsate from those tanks is covered under the PFPR rule; however, if the facility cannot make this distinction, then rinsate from all tanks containing that material is covered by the rule.

Do DOT test bath waters require treatment?

No; however, under the P2 alternative, DOT test bath water from continuous overflow baths must include some recircula-

	tion or be a batch bath. Otherwise, they must meet zero discharge.
If a facility manufactures a pesticide active ingredient and formulates a product with the same pesticide active ingredient, is the laboratory exemption only applicable to the PFPR laboratory wastewater?	Yes.
If a facility only has safety showers and eye washes, is it within the scope of the regulation? If so, what are the implications of this rule?	Determining whether the facility is within the scope of the regulation depends on whether they have a potential to discharge process wastewater. EPA's Pretreatment Bulletin #13 (see Appendix E) states that it is possible to discharge non-covered wastewater streams, in this case safety showers and eye washes, in such a way that there is no potential for the facility to also discharge process wastewater. However, if the noncovered wastewater sources are located in an area (e.g., a formulating area), where it is possible for the noncovered wastewater discharge to become contaminated with process wastewater, then the facility has a potential to discharge and is within the scope of the regulation. Documentation that would be required would depend on the facility's potential to discharge.
Are wastewaters associated with the cleaning of coveralls covered by the rule?	On-site laundry operations are not covered under the scope of this rule.
Are water emissions from research and development pilot plant operations exempt from the rule?	Yes. See 40 CFR 455.40(e) of the final rule.
Is storm water completely exempt from regulation? What about contaminated storm water from diked areas?	Storm water is exempt from coverage under the final PFPR rule (61 FR 57524), and therefore is not subject to the P2 practices and treatment requirements of that rule. However, a facility's storm water discharges <i>are</i> covered under Phases I or II of the General Storm Water Regulations (61 FR 57524).
Assume a facility stores all rinsates in an outdoor storage tank. Are leaks and spills from that tank covered, since storm water is not covered?	Leaks and spills are covered by this rule. All leaks and spills must be cleaned up in a timely fashion, as discussed in P2 alternative practice #2 (61 FR 57553). Leaks and spills in outdoor storage tanks should be cleaned up prior to storm events; the resulting storm water is not covered by the rule.